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**Avinash**

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(54) **ROBUST AND EFFICIENT  
DECOMPOSITION ALGORITHM FOR  
DIGITAL X-RAY DE IMAGING**

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(58) Field of Search ..... **378/5, 62, 98.9,  
378/98.11, 98.12, 901**

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(57) **ABSTRACT**

The present technique provides a variety of processing schemes for decomposing soft tissue and bone images more accurately from low and high-energy images acquired from an imaging system, such as a dual-energy digital radiography system using flat-panel technology. In particular, a modified decomposition process is provided to mitigate noise and to reduce contrast artifacts, such as blooming, while decomposing soft tissue and bone images from low and high-energy images.

**45 Claims, 12 Drawing Sheets**

